



**PATENT
UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of :
DAVID E. FORD, ET AL. :
Serial No. 09/756,477 : Art Unit: 1711
Filed: January 8, 2001 : Examiner: Rajguru, U.K.
Title: THERMOPLASTIC DOOR SKINS : Atty. Dkt.: 6240.880
AND METHOD OF MANUFACTURE :
THEREOF :
_____ :

APPELLANT'S APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Technology Center 1700

Dear Sir:

Appellant appeals from the Examiner's Final Rejection of all pending claims in the above-captioned application. Enclosed are three (3) copies of Appellant's Appeal Brief, along with a Request for an Extension of Time and the requisite fee.

Real Party in Interest:

The real party in interest is Masonite Corporation, One North Dale Mabry Highway, Suite 950, Tampa, Florida, 33609, and assignee of the above-captioned patent application, Serial No. 09/756,477.

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Related Appeals and Interferences:

There are no appeals or interferences known to Appellant, Appellant's legal representative or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 1, 4-7 and 13-15 have been finally rejected by the Examiner. Claims 2-3 have been cancelled. Claims 8-12 were withdrawn from consideration following an election requirement.

Appellant appeals the Examiner's Final Rejection of claims 1, 4-7 and 13-15, which are set forth in the Appendix attached hereto.

Status of Amendments:

No amendments were filed subsequent to the Final Office Action dated April 14, 2003.

Summary of Invention:

The present invention is directed to materials for forming a molded door skin for a hollow core door assembly. *Specification, page 1, lines 5-7.* Specifically, Appellant claims a molded door skin comprising approximately fifty to eighty five percent by weight polypropylene. *Claim 1; Specification, page 13, lines 16-18 and 21-22.*

The present invention is also directed to a molded door skin for a hollow core door assembly comprising approximately fifty to eighty five percent by weight

polypropylene and approximately ten to twenty percent by weight glass fibers. *Claim 4; Specification, page 13, lines 18-24.*

The present invention is also directed to a molded door skin for a hollow core door assembly comprising approximately sixty six percent by weight polypropylene and approximately fifteen percent by weight glass fiber. *Claim 5; Specification, page 13, lines 9-12.*

The present invention is also directed to a molded door skin for a hollow core door assembly comprising approximately fifty to eighty five percent by weight high impact polystyrene. *Claim 6; Specification, page 14, lines 1-3.*

The present invention is also directed to a molded door skin for a hollow core door assembly, which comprises approximately eighty percent by weight high impact polystyrene and approximately twenty percent by weight wood fiber. *Claim 7; Specification, page 14, lines 3.*

The present invention is also directed to a molded door skin for a hollow core door assembly, which comprises approximately sixty six percent by weight polypropylene, approximately fifteen percent by weight glass fiber, and approximately fifteen percent by weight talc. *Claim 13; Specification, page 13, lines 9-12.*

The present invention is also directed to a molded door skin for a hollow core door assembly, which comprises approximately sixty six percent by weight polypropylene, approximately fifteen percent by weight glass fiber, approximately fifteen percent by weight talc, and at least one percent by weight UV stabilizer. *Claim 14; Specification, page 13, lines 9-13.*

The present invention is also directed to a molded door skin for a hollow core door assembly, which comprises approximately sixty six percent by weight polypropylene, approximately fifteen percent by weight glass fiber, approximately fifteen percent by weight talc, and at least one percent by weight benzotriazole. *Claim 15; Specification, page 13, lines 9-13.*

Issues:

Whether claims 1, 4-7 and 13-15 are unpatentable under 35 U.S.C. §103 over Chen (U.S. Patent No. 5,644,870) in view of Sasaki et al (U.S. Patent No. 6,313,184) and Plummer et al. (U.S. Patent No. 5,985,429).

Grouping of Claims:

Appellant submits that all of the claims on appeal are separately patentably. Claims 1, 4-7 and 13-15 do not stand or fall together. Support for Appellant's assertion is provided in the arguments below.

Argument:

The Examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The term "*prima facie* case" refers only to the initial examination step. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant. *Id.*

In the present application, the Examiner finally rejected claims 1, 4-7 and 13-15 as being obvious over Chen, in view of Sasaki et al and Plummer et al. by Office Action dated April 23, 2003. In support of the rejection, the Examiner referred to item 8 of the prior Office Action dated May 23, 2002. The Examiner stated therein: "Chen does not mention polypropylene, high impact polystyrene, glass fibers and wood fibers."

However, the Examiner asserted: "Sasaki discloses molded articles made from copolymers of propylene. Articles include a door panel and a door trim. ... Plummer discloses a composition comprising a polymer, a short and long fiber composite. High impact polystyrene is a suitable polymer. Suitable fibers include glass fibers and wood fibers." *May 23, 2002 Office Action, Item 8, pages 3-4.*

Thus, the Examiner acknowledged that Chen fails to disclose or suggest the use of polypropylene, high impact polystyrene, glass fibers and wood fibers to make a door skin. Nevertheless, the Examiner initially concluded in the May 23, 2002 Office Action that it "would have been obvious to use polypropylene and/or high impact polystyrene as the polymer to make the door of Chen since both these polymers are shown to be equally suitable for that purpose. It would also have been obvious to use the wood fibers for reinforcement in the door of Chen since wood fibers are proved (by Plummer) to be equivalent to glass fibers for reinforcement and also they are cheaper than glass fibers." *May 23, 2002 Office Action, Item 8, page 4.*

However, in the Final Office Action of April 23, 2003, the Examiner decided that "Sasaki is a secondary reference and does not have to be directed to a door skin." The Examiner stated further: "Besides, the molded article of Sasaki is useful as a product for ship or airplane and a building material (col. 10, lines 49-52). This teachings of Sasaki

obviously leads one to its use to make a skin for a door.” *April 14, 2003 Office Action, Item 5, page 2.* Sasaki et al. provide no such teaching or suggestion leading to this conclusion.

Sasaki et al. fail to disclose or suggest a door skin formed from polypropylene or high impact polystyrene. Rather, Sasaki et al. disclose molded articles used as automotive interior materials integrated with a skin material such as a dashboard, a console box, a console lid, an instrument panel, a door panel, a door trim, a ceiling material, an interior material for pillar portion, a sun visor, an arm rest, a head rest and the like. Alternatively, the product may be used for core materials such as for a helmet, a heat insulating material, a structural material for ship or airplane, a cushioning material, and a building material. *’184 patent, column 10, lines 44-52.*

The molded articles disclosed by Sasaki et al. are all directed either to articles for the interior of an automobile, or core or insulating materials. Such articles and materials are not comparable with a door skin for a hollow core door, given their size and shape is much different than a hollow core door skin. Special considerations and problems arise with the manufacture of thermoplastic door skins for hollow core doors, and prior attempts for the commercial production of such door skins have been unsuccessful and impractical. *Specification, page 3, lines 5-10.* Sasaki et al. is not directed to such door skins.

Likewise, Plummer et al. fail to disclose a polypropylene or polystyrene door skin for a hollow core door assembly. Plummer et al. disclose composite thermoplastic materials used for making structural members, such as rails, jambs, stiles, sills, tracks, stop and sash, and some trim elements. *’429 patent, column 1, lines 26-30.* Again, the

size and shape of such articles are much different than a door skin for a door. The articles disclosed by Plummer et al. are generally thicker, smaller components, and do not compare to a door skin with regard to molding processes.

With respect to Plummer et al., the Examiner simply stated, “Specially teaching of Plummer in col. 2, lines 48-52 offers enough suggestions to one to use the composite to prepare door structural members, one such member being a door skin.” *April 14, 2003 Office Action, Item 5, page 3.* Plummer provides no such suggestion. To the contrary, the ‘429 patent provides: “We have found that an improved substitute for composite, wood and metal structural members and the problems relating to the recycle of waste streams in window manufacture can be solved by forming a polymer/fiber composite material into window and door structural members.” *‘429 patent, column 2, lines 48-52.*

The test for obviousness has not been properly applied to Appellant’s claimed invention. “Focusing on the obviousness of substitutions and differences, instead of on the invention as a whole, is a legally improper way to simplify the often difficult determination of obviousness.” *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1383, 231 USPQ 81, 93 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947, 107 S.Ct. 1606 (1987). Individual features of the invention may not simply be amassed from various references unless there is some suggestion for their combination. Indeed, “identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the application.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17

(Fed. Cir. 2000); *see also In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990)(The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)(Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination).

The cited references fail to provide the requisite incentive or suggestion for their combination. Therefore, a *prima facie* case of obviousness has not been made, given there is no suggestion or incentive for combining the cited references.

Furthermore, neither Sasaki et al. nor Plummer et al. are directed to door skins for use with a hollow core door assembly. “In order to rely on a reference as a basis for rejection of the applicant's invention, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986). “The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge cannot come from the applicant's invention itself.” *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 678-79, 7 USPQ2d 1315, 1318 (Fed. Cir. 1988); *In re Geiger*, 815 F.2d 686, 687, 2

USPQ2d 1276, 1278 (Fed. Cir. 1978); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1147, 227 USPQ 543, 551 (Fed. Cir. 1985).

The materials and processes used to make components for the interior of an automobile such as disclosed by Sasaki et al., or structural components such as disclosed by Plummer et al., are not pertinent to the materials and processes used to make door skins. Special considerations and problems arise with the manufacture of thermoplastic door skins for use with a hollow core door assembly. *Specification, page 3, lines 5-10.*

As known to those skilled in the art, a door skin has a relatively large surface area compared to those articles disclosed by Sasaki et al. and Plummer et al. The surface quality of a door skin's exterior surface must be sufficiently free of imperfections and cracks to be commercially viable. It is more difficult to achieve adequate surface quality for an article having a large surface area such as a door skin. A door skin is also relatively thin compared to the thicker structural members disclosed in the cited references. One skilled in the art would not have looked to molding processes used for molding relatively thick and/or small articles such as disclosed in Sasaki et al. or Plummer et al. As such, the Examiner has improperly relied on nonanalogous sources to support his rejection.

In response to the Office Action of May 23, 2002, Appellant amended the preambles of claims 1 and 6 to provide that the molded door skins were "for a hollow core door assembly". In the context of the amended preamble, Appellant submits that Sasaki et al. and Plummer et al. are clearly not pertinent sources in the field of the Appellant's endeavor (i.e. hollow core door assemblies).

The Examiner asserted that the amendments to the preambles suggested only an intended use. However, “[w]hether to treat a preamble as a limitation is a determination resolved only on review of the entire ... patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” *Corning Glass Works v. Sumitomo Electric U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989); see also *Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1572-73, 40 USPQ2d 1481, 1488 (Fed. Cir. 1996)(Whether a preamble stating the purpose and context of the invention constitutes a limitation of the claimed process is determined on the facts of each case in light of the overall form of the claim, and the invention as described in the specification and illuminated in the prosecution history).

In the present application, the claimed invention is clearly limited by the preamble. Indeed, without the preamble, claim 1 would provide for only “approximately fifty to eighty five percent by weight polypropylene”. Obviously, Appellant is not simply claiming an amount of polypropylene. Furthermore, Appellant is not claiming any door panel, such as a door panel for the interior of an automobile. Rather, Appellant claims a molded door skin for use with a hollow core door assembly.

“The determination of whether preamble recitations are structural limitations or mere statements of purpose or use "can be resolved only on review of the entirety of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). In the present application, a structurally complete invention is not defined in the body of claims 1 and 6, nor are the preambles used only to state an

intended use for the invention. Rather, structural characteristics of the invention (i.e. a relatively thin, molded panel having a relatively large surface) are conveyed by the preamble (i.e. a molded door skin for use with a hollow core door assembly). The preamble is “necessary to give life, meaning, and vitality to the claim.” *Pitney Bowes*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999).

The present invention is clearly distinguishable from the inventions disclosed in the cited references, given none of the references disclose a door skin for use with a hollow core door assembly formed from either polypropylene or polystyrene. Appellant distinguished the cited references during prosecution through clear reliance on limitations set forth in the preamble (i.e. a molded door skin for use with a hollow core door assembly). *See Catalina Marketing International, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, (Fed. Cir. 2002)(Clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention). The Examiner failed to consider the invention in the context of the preamble.

Appellant asserts that each claim on appeal is separately patentable. “It is to the claims which particularly point out what the inventor regards as his invention that one must look, and each claim must be considered separately. In one piece of apparatus disclosed as an embodiment of an invention, there may be several inventions; therefore, the claims are the place to look, and each claim must be considered separately.” *Stiftung v. Renishaw PLC*, 945 F.2d 1173, 1181, 20 USPQ2d 1094, 1101 (Fed. Cir. 1991). Each claim should be reviewed separately. *See In re Beaver*, 893 F.2d 329, 330, 13 USPQ2d

1409, (Fed. Cir. 1989)(Applicant submitted concise arguments pointing out the essential elements as compared with prior claims, and the inapplicability of the cited references, which had previously been discussed in the brief. It was therefore not only unfair to the applicant, but also inefficient to decline to review claims that were properly appealed and reasonably argued before the Board).

Arguments of patentability for each claim are provided separately:

Claim 1:

The invention of claim 1 provides for a molded door skin for a hollow core door assembly comprising approximately fifty to eighty five percent by weight polypropylene. As noted above, none of the cited references, either alone or in combination, disclose or suggest the invention of claim 1. Appellant refers the Board to its arguments set forth above, which will not be repeated hereafter. In addition, it should be noted that none of the cited references disclose or suggest a molded door skin comprising the specified percentage by weight of polypropylene.

Claim 4:

The invention of claim 4 provides for a molded door skin, comprising approximately fifty to eight five percent by weight polypropylene, and approximately ten to twenty percent by weight glass fibers. None of the cited references, either alone or in combination, disclose or suggest the invention of claim 4. Furthermore, the cited references fail to disclose or suggest a molded door skin comprising polypropylene and glass fibers in the specified percentages by weight.

Claim 5:

The invention of claim 5 provides for a molded door skin, comprising approximately sixty six percent by weight polypropylene and approximately fifteen percent by weight glass fiber. None of the cited references, either alone or in combination, disclose or suggest the invention of claim 5. Furthermore, none of the cited references disclose or suggest the specific percentages by weight of polypropylene and glass fiber.

Claim 6:

The invention of claim 6 provides for a molded door skin for a hollow core door assembly comprising approximately fifty to eighty five percent by weight high impact polystyrene. None of the cited references, either alone or in combination, disclose or suggest the invention of claim 6. In addition, none of the cited references disclose or suggest a molded door skin comprising the specified percentage by weight of high impact polystyrene.

Claim 7:

The invention of claim 7 provides for a molded door skin for a hollow core door assembly comprising approximately eighty percent by weight high impact polystyrene and approximately twenty percent by weight wood fiber. None of the cited references, either alone or in combination, disclose or suggest the invention of claim 7. In addition, none of the cited references disclose or suggest a molded door skin comprising the specified percentages by weight of high impact polystyrene and wood fiber.

Claim 13:

The invention of claim 13 provides for a molded door skin, comprising approximately sixty six percent by weight polypropylene, approximately fifteen percent

by weight glass fiber, and approximately fifteen percent by weight talc. None of the cited references, either alone or in combination, disclose or suggest the invention of claim 13. Furthermore, none of the cited references disclose or suggest the specific percentages by weight of the components set forth this claim.

In support of the rejection of claims 13-15, the Examiner stated: "Please refer to item 8 of office action, paper no. 7 for this rejection (applied to new claims 13-15 also)." April 14, 2003 Office Action, Item 5, page 2. However, the prior Office Action does not address the inventions disclosed in claims 13-15, given these claims were not added until after the Examiner's initial Office Action. None of the references disclose or suggest a molded door skin for use with a hollow core door assembly containing talc, UV stabilizer, or benzotriazole.

Claim 14:

The invention of claim 14 provides for a molded door skin, comprising approximately sixty six percent by weight polypropylene, approximately fifteen percent by weight glass fiber, approximately fifteen percent by weight talc, and approximately one percent by weight UV stabilizer. None of the cited references, either alone or in combination, disclose or suggest the invention of claim 14. Furthermore, none of the cited references disclose or suggest the specific percentages by weight of the components set forth this claim.

Claim 15:

The invention of claim 15 provides for a molded door skin, comprising approximately sixty six percent by weight polypropylene, approximately fifteen percent by weight glass fiber, approximately fifteen percent by weight talc, and approximately

one percent by weight benzotriazole. None of the cited references, either alone or in combination, disclose or suggest the invention of claim 15. Furthermore, none of the cited references disclose or suggest the specific percentages by weight of the components set forth this claim.

The Prior Art Fails to Provide Enabling Disclosure

The cited references fail to provide enabling disclosure for manufacturing a thermoplastic door skin. Therefore, the cited reference are not enabling with respect to Appellant's claimed invention pursuant to 35 U.S.C. §112. As noted by Appellant, "although others have discussed the possibility of thermoplastic door skins, to applicant's knowledge no one has successfully produced a thermoplastic door skin." *Specification, page 3, lines 13-16*. By contrast, Appellant provides enabling disclosure for such a thermoplastic door and method of manufacture.

Conclusion:

For the reasons set forth herein, Appellant respectfully requests that the Board reverse the Examiner's Final rejection. Allowance of all pending claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. C. Schrot', with a long horizontal line extending to the right.

William C. Schrot
Registration No. 48,447
Attorney for Appellant

Liniak, Berenato & White, LLC
6550 Rock Spring Drive, Suite 240
Bethesda, Maryland 20817
Telephone: (301) 896-0600
Facsimile: (301) 896-0607
Email: wschrot@lblw.com

APPENDIX

The claims involved in this appeal are provided:

1. A molded door skin for a hollow core door assembly, comprising:
 - a. approximately fifty to eighty five percent by weight polypropylene.
4. The molded door skin as in Claim 1, further comprising approximately ten to twenty percent by weight glass fibers.
5. The molded door skin as in Claim 1, further comprising approximately sixty six percent by weight polypropylene and approximately fifteen percent by weight glass fiber.
6. A molded door skin for a hollow core door assembly comprising:
 - a. approximately fifty to eighty five percent by weight high impact polystyrene.
7. The door skin as in Claim 6 comprising approximately eighty percent by weight polystyrene and approximately twenty percent by weight wood fiber.
13. The door skin of claim 5, further comprising approximately fifteen percent by weight talc.

14. The door skin of claim 13, further comprising at least one percent by weight UV stabilizer.
15. The door skin of claim 14, wherein said UV stabilizer is benzotriazole.